

Outfall 002A – TCE Exceedance in April 2020 and Plan of Action

The TCE concentration in the sample from outfall 002A (groundwater infiltration) was 8.0 ppb this month, compared to a permit limit of 5 ppb.

We believe this exceedance was due to incomplete capture of dry weather flow during the month prior to and possibly at the time of sample collection.

The reasons for this conclusion are as follows:

1. Full capture of dry weather flow may not have been achieved at the time of sample collection at a storm water recovery flow rate of 29.02 gallons per minute (gpm). The level of water recorded for the pump chamber at the time of 002A sample collection (9:38 AM on 4/21/2020) was 4.026 ft-bgs (approximately 4.4 inches below the estimated 3.66 ft bgs top of the baffle in CB-87R), and indicated it had been below the baffle wall height for approximately 48 hours. However, the overflow switch was engaged at the time of sample collection and had been engaged since March 23, which is consistent with the heavy rain observed at the site over that time period. Historic discrepancies in measured and observed data (flow rate at Outfall 002A exceeding that of Effluent 002B although the level transmitter was recording full capture), have indicated that the water level in CB-87R is not equal to the water level in the pump chamber. For this reason, an additional level transmitter was installed in CB-87R in March 2020 to more definitively conclude whether or not flow is going over the baffle wall. The new transmitter indicated the water level was 3.61 ft-bgs, (approximately 0.6 inches above the baffle wall) consistent with water going over the baffle wall.

The following corrective action(s) took place and/or are planned:

1. We will operate and maintain the dry weather recovery system, up to the design maximum vault recovery rate, such that dry conditions on the downstream side of the baffle are achieved whenever possible. This will include a modification of the existing VFD settings so that the recovery system will maintain the water level at a greater depth below the top of the baffle wall to ensure full capture is achieved whenever possible.
2. Potential cleaning of the overburden header pipe this spring is being evaluated. It is anticipated that this will allow for increased flow rates in that system, which will reduce the amount of dry weather flow into the storm system.
3. As indicated above, an additional level transmitter was installed in CB-87R in March 2020 to more definitively conclude whether or not flow is going over the baffle wall. AECOM is planning to field verify this transmitter reading as the water is held at the level of the baffle wall.